UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,720	10/04/2001	David Ian Houlding	92717-315	3044

		EXAMINER
7590	05/06/2004	FOWLKES, ANDRE R

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ART UNIT	PAPER NUMBER
2122	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/971,720	HOULDING, DAVID IAN
		Examiner	Art Unit
		Andre R. Fowlkes	2122

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _04 October 2001_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-40_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-40_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _04 October 2001_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1. Claims 1-40 are pending.

Drawings

2. The drawings are objected to because the drawings are informal. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 9, 12-22, 25, 26, 32-35, 38 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Beatty et al. (Beatty), U.S. Patent No. 5,913,052.

As per claim 1, Beatty discloses a system and method for debugging software with an architectural view (see Abstract), and in that, Beatty covers the steps of:

     - accessing a datafile descriptive of the underlying architecture (col. 6 lines 20-23, "the memory stores (a datafile containing) a plurality of user-selectable architectures corresponding to a plurality of (underlying architectures)"),

     - transforming the datafile to determine architectural components used to form the underlying architecture and rendering a plurality of graphical elements representative of the architectural components on a graphical display (col. 6 lines 23-26, "(The datafile is transformed and then) the display coupled to the memory, displays (the architectural components of the underlying architecture)"),

     - the graphical elements forming a graphical representation of the underlying architecture (col. 6 lines 24-25, "a window on the display (includes a graphical representation of the underlying) architecture including a graphical device layout").

     As per claim 2, the rejection of claim 1 is incorporated and further, Beatty discloses **generating a plurality of subsections of the graphical image** (Fig. 4, item 430 and the associated text, (e.g. col. 7 line 11 - col. 8 line 11), describe vertical subsections of the graphical image), **and locating the graphical elements in the subsections as described by the datafile** (col. 2 lines 42-43, "the architecture including a graphical device layout (containing the graphical elements in subsections)").

     As per claim 3, the rejection of claim 1 is incorporated and further, Beatty discloses that **the subsections are displayed as tiers** (Fig. 4, item 430 and the

associated text, (e.g. col. 7 line 11 - col. 8 line 11), describe the subsections of the

system displayed as vertical tiers).

As per claim 4, the rejection of claim 1 is incorporated and further, Beatty

discloses **providing access to the visualization on a network** (col. 5 lines 12-20, "It

should be noted that (this invention may be used with)... computer system/network

combinations").

As per claim 5, the rejection of claim 4 is incorporated and further, Beatty

discloses that **the network is the Internet** (col. 5 lines 12-20, "It should be noted that

(this invention may be used with)... computer system/network combinations (i.e. the

Internet)").

As per claim 6, the rejection of claim 1 is incorporated and further, Beatty

discloses **communicating the rendered graphical representation across a network**

(col. 5 lines 12-20, "It should be noted that (this invention may communicate the

representation across)... computer system/network combinations").

As per claim 7, the rejection of claim 1 is incorporated and further, Beatty

discloses **receiving data for said rendering from a network connection** (col. 5 lines

12-20, "It should be noted that (this invention may receive data for rendering from)...

computer system/network combinations").

As per claim 8, the rejection of claim 7 is incorporated and further, Beatty discloses **storing the data** (Fig. 1, item 180, and the associated text (e.g. col. 4 line 41 - col. 2 line 34), show a memory used to store data).

As per claim 9, the rejection of claim 1 is incorporated and further, Beatty discloses:

- **providing at least one control on the graphical display and receiving a selection of the at least one control** (col. 6 lines 26-30, "The processor, coupled to the display (provides controls to) simulate operation of the ... software and emulated operation of the (underlying architecture) ... to cause the (underlying architecture) to change states"),

- **performing a graphical operation on the graphical display indicative of dynamic functional operations of the underlying architecture** (col. 6 lines 30-31, "The processor controls the display to update the (graphical display of the underlying architecture in ways indicative of its dynamic functional operations)").

As per claim 12, the rejection of claim 1 is incorporated and further, Beatty discloses **executing interactive operations to provide a graphical representation of collaborative interaction between the graphical elements** (col. 6 lines 26-33, "The processor, coupled to the display, simulates operation of the ... software... The

processor controls the display to update the (graphical representation to show collaborative interaction between elements)").

As per claim 13, the rejection of claim 1 is incorporated and further, Beatty discloses **altering the graphical elements based on a selected configuration of the software system** (col. 6 lines 18-25, "the memory stores a plurality of ... (different graphical elements/systems representative of underlying architecture components and systems) corresponding to (a plurality of software system configurations)", and the graphical elements displayed are altered when a user chooses a different configuration).

As per claim 14, the rejection of claim 1 is incorporated and further, Beatty discloses **receiving an event initiated by an operation performed in a second graphical display operating in isolation of actual components of the underlying architecture** (Fig. 4, items 460, 470, and 450 show additional graphical displays used to initiate events, and col. 6 lines 26-33, "The processor, couples to the display, simulates operation of the ... software and emulates operation of the particular (underlying architecture) ... to cause the particular (underlying architecture) to change states"), and **performing an operation on the graphical display based on the event** (col. 6 lines 30-33, "The processor controls the display to update the (representation of the underlying architecture)").

As per claim 15, the rejection of claim 1 is incorporated and further, Beatty

discloses **receiving an event initiated by an operation performed in a second**

graphical display operating in conjunction with actual components of the

underlying architecture (Fig. 4, items 460, 470, and 450 show additional graphical

displays used to initiate events, and col. 6 lines 34-43, "the system of the present

invention my include an interface and a real (underlying architecture) ... associated with

the computer. In this alternative, the processor causes the ... software to execute

within the real (underlying architecture) ... to change states.)"), and **performing an**

operation on the graphical display based on the event (col. 6 lines 39-43, "The

processor controls the display to update the (graphical representation of the underlying

architecture").

As per claim 16, this is a system version of the claimed method discussed above

in claim 7, wherein all claimed limitations have also been addressed above.

As per claims 17 and 18, Beatty also discloses such claimed limitations as

addressed in claims 2 and 5 above, respectively.

As per claim 19, the rejection of claim 16 is incorporated and further, Beatty

discloses that the **communication port is coupled to a network to provide access to**

a datafile located on a host server on the network (col. 5 lines 12-20, "It should be

noted that (this invention may be used with)... computer systems (i.e. server)/network combinations").

As per claim 20, the rejection of claim 19 is incorporated and further, Beatty discloses that **the information is derived from the datafile by the host server** (col. 5 lines 12-20, "It should be noted that (this invention may derive information from a datafile using)... computer systems (i.e. server)/network combinations").

As per claims 21, 22, 25 and 26, Beatty also discloses such claimed limitations as addressed in claims 9, 14 and 15 above, respectively.

As per claim 32, this is a product version of the claimed method discussed above in claim 1, wherein all claimed limitations have also been addressed above and such a product is deemed to be inherent in the Beatty system and method for debugging software, otherwise it would be inoperative.

As per claims 33 and 34, Beatty also discloses such claimed limitations as addressed in claims 6 and 5 above, respectively.

As per claim 35, this is another system version of the claimed method discussed above in claim 1, wherein all claimed limitations have also been addressed above.

As per claims 38 and 40, Beatty also discloses such claimed limitations as

addressed in claims 1 and 5 above, respectively.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 10, 11, 23, 24, 27-31, 36, 37 and 39 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Beatty et al. (Beatty), U.S. Patent No. 5,913,052 in view of

Weinberg et al. (Weinberg) U.S. Patent No. 6,144,962.

As per claim 10, the rejection of claim 1 is incorporated and further, Beatty

doesn't explicitly disclose that **the graphical display is a web page**.

However, Weinberg, in an analogous environment, discloses that **the graphical**

display is a web page (Fig. 11, and associated text (e.g. col. 23 line 39 – col. 24 line

25), show that the graphical display is a webpage).

Therefore, it would have been obvious to a person of ordinary skill in the art, at

the time the invention was made, to incorporate the teachings of Weinberg into the

system of Beatty to have the graphical display as a web page. The modification would

have been obvious because one of ordinary skill in the art would have wanted a

convenient, universal way to display the graphical information to the user (Beatty, col. 2 lines 27-30).

As per claim 11, the rejection of claim 1 is incorporated and further, Beatty doesn't explicitly disclose that **the datafile includes extensible markup language (XML).**

However, Weinberg, in an analogous environment, discloses that **the datafile includes extensible markup language (XML)** (col. 2 lines 10-13, "the program includes Web site scanning routines ... to gather information about ... HTML (and XML) documents and links of a Web site").

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Weinberg into the system of Beatty to have the datafile include extensible markup language. The modification would have been obvious because one of ordinary skill in the art would have wanted the system to understand XML, to be able to collect as much information as possible from the data file, to analyze the software to the fullest extent, in order to enable the maximum optimization of the software and underlying architecture (Beatty, col. 2 lines 27-30).

As per claims 23 and 24, Beatty also discloses such claimed limitations as addressed in claims 10 and 11, respectively.

As per claim 27, Beatty discloses a **system for providing a visualization of an underlying architecture of a software system** (col. 6 lines 23-26, "(The datafile is used with) the display, coupled to the memory, (to) display (the underlying architecture of the software system)").

Beatty doesn't explicitly disclose:

- **a servlet engine,**

- **a stylesheet database including at least one style format to display the visualization, and**

- **an interface component coupled to said servlet engine, said interface component operable to receive events.**

However, Weinberg, in an analogous environment, discloses:

- **a servlet engine** (On col. 8 line 50, Weinberg discusses the use of "applets", which are companions to servlets which are used in conjunction with servlet engines),

- **a stylesheet database including at least one style format to display the visualization** (col. 2 lines 32-48, "To generate the site map, ... a hierarchical (page layout specification (i.e. style sheet) is used in the) arrangement of (graphical elements)"), **and**

- **an interface component coupled to said servlet engine, said interface component operable to receive events** (On col. 8 line 50, Weinberg discusses the use of "applets", which are companions to servlets which are used in conjunction with servlet engines. In order for the servlet engine to be operable, an interface, operable to receive events, must be present),

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Weinberg into the system of Beatty to have a servlet engine, a stylesheet database including at least one style format to display the visualization, and

an interface component coupled to said servlet engine, said interface component operable to receive events. The modification would have been obvious because one of ordinary skill in the art would have wanted to use servlet technology to efficiently display the visualization and stylesheets to clearly and consistently display the graphical representation (Beatty, col. 2 lines 25-30). The combination of these technologies results in a system that uses system resources efficiently, as well as enabling user productivity, by providing clear consistent visualizations.

As per claim 28, the rejection of claim 27 is incorporated and further, Beatty doesn't explicitly disclose that **the software system is a website.**

However, Weinberg, in an analogous environment, discloses that **the software system is a website** (col. 2 lines 10-13, "the program includes Web site scanning routines ... to gather information about ... a Web site").

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Weinberg into the system of Beatty to have the software system as a website. The modification would have been obvious because one of ordinary skill in the art would have wanted view the

underlying architecture of a website in order to find ways to utilize the resources of the

underlying architecture of the website more effectively (Beatty, col. 2 lines 27-30).

As per claim 29, the rejection of claim 27 is incorporated and further, Beatty

discloses **a storage device having at least one datafile describing the visualization**

stored thereon (col. 6 lines 18-25, "the memory stores a plurality of ... (different

graphical representations of underlying architecture components and systems)

corresponding to (a plurality of software system configurations)", and the graphical

elements displayed are altered when a user chooses a different configuration).

As per claim 30, the rejection of claim 27 is incorporated and further, Beatty

discloses that **the system is a server coupled to a network** (col. 5 lines 12-20, "It

should be noted that (this invention may be used with)... computer system (i.e.

server)/network combinations").

As per claim 31, the rejection of claim 30 is incorporated and further, Beatty

discloses **the network is the Internet** (col. 5 lines 12-20, "It should be noted that (this

invention may be used with)... computer system/network combinations (i.e. the

Internet)").

As per claim 36, the rejection of claim 35 is incorporated and further, Beatty

doesn't explicitly disclose that **the data is HTML.**

However, Weinberg, in an analogous environment, discloses that (col. 2 lines 10-13, "the program includes Web site scanning routines ... to gather information about ... HTML documents").

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Weinberg into the system of Beatty to have HTML data. The modification would have been obvious because one of ordinary skill in the art would have wanted the system to understand HTML, to be able to collect as much information as possible from the data file, to analyze the software to the fullest extent, in order to enable the maximum optimization of the software and underlying architecture (Beatty, col. 2 lines 27-30).

As per claims 37 and 39, Beatty also discloses such claimed limitations as addressed in claims 27 and 28, respectively.

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre R. Fowlkes whose telephone number is (703)305-8889. The examiner can normally be reached on Monday - Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (703)305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

ARF

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PRIMARY PATENT EXAMINER